

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Canceled).

2. (Currently Amended) The method of claim [[1]] 3, wherein multiplying the subprecise operand and the non-subprecise operand comprises using a multiplier array.

3. (Currently Amended) A method for providing a floating point product, comprising:
multiplying a subprecise operand and a non-subprecise operand using a plurality of intermediate stages; and
correcting an error introduced by the subprecise operand by:
performing an operation in conjunction with a one of the plurality of
intermediate stages utilizing a compensating summand;

~~The method of claim 1, wherein correcting the error introduced by the subprecise operand further comprises:~~

determining the position of a delimiter bit contained within a first significand corresponding to the subprecise operand; and

generating the compensating summand utilizing the determined position of the delimiter bit, wherein the compensating summand is initially equal to a second significand corresponding to the non-subprecise operand.

4. (Original) The method of claim 3, wherein generating the compensating summand further comprises:

shifting the compensating summand so that the rightmost bit is aligned with the determined delimiter bit position;

logically inverting the compensating summand; and

adding a logical 1.

5. (Currently Amended) The method of claim [[1]] 3, wherein the subprecise operand is represented using a delimited normalized format with an implicit leading 1-bit.

6. (Currently Amended) The method of claim [[1]] 3, wherein the one of the plurality of intermediate stages is selected wherein a substantial time delay to correct the error is avoided.

7. (Currently Amended) The method of claim [[1]] 3, wherein time consumed by multiplying the subprecise operand and the non-subprecise operand overlaps time consumed in correcting the error.

8. (Canceled).

9. (Currently Amended) The system of claim ~~[[8]]~~ 11, wherein the multiplying circuit comprises a multiplier array.

10. (Original) The system of claim 9, wherein the multiplier array uses 3-to-2 adders.

11. (Currently Amended) A system for providing a floating point product comprising:

a multiplying circuit for multiplying a subprecise operand and a non-subprecise operand using a plurality of intermediate stages, wherein an error introduced by the subprecise operand is corrected by performing an operation in conjunction with a one of the plurality of intermediate stages utilizing a compensating summand; and

~~The system of claim 8, further comprising~~ a creating circuit for creating the compensating summand comprising:

a determining circuit for determining the position of a delimiter bit contained within a first significand corresponding to the subprecise operand; and

a generating circuit for generating the compensating summand utilizing the determined position of the delimiter bit, wherein the compensating summand is initially equal to a second significand corresponding to the non-subprecise operand.

12. (Original) The system of claim 11, wherein the generating circuit further comprises:

a shifting circuit for shifting the compensating summand so that the rightmost bit is aligned with the determined delimiter bit position;

a logical inversion circuit for logically inverting the compensating summand; and

a producing circuit for producing a logical 1 to the compensating summand.

13. (Currently Amended) The system of claim [[8]] 11, wherein the subprecise operand is represented using a delimited normalized format with an implicit leading 1-bit.

14. (Currently Amended) The system of claim [[8]] 11, wherein the one of the plurality of intermediate stages is selected wherein a substantial time delay to correct the error is avoided.

15. (Currently Amended) The system of claim [[8]] 11, wherein time consumed by multiplying the subprecise operand and the non-subprecise operand overlaps time consumed in correcting the error.

16. (Canceled).

17. (Currently Amended) A computer-readable medium on which is stored a set of instructions for providing a floating point product, which when executed perform stages comprising:

multiplying a subprecise operand and a non-subprecise operand using a plurality of intermediate stages; and

correcting an error introduced by the subprecise operand by:

performing an operation in conjunction with a one of the plurality of intermediate stages utilizing a compensating summand; ~~The computer-readable medium of claim 16, wherein correcting the error introduced by the subprecise operand further comprises:~~

determining the position of a delimiter bit contained within a first significand corresponding to the subprecise operand; and

calculating the compensating summand utilizing the determined position of the delimiter bit, wherein the compensating summand is initially equal to a second significand corresponding to the non-subprecise operand.

18. (Original) The computer-readable medium of claim 17, wherein generating the compensating summand further comprises:

shifting the compensating summand so that the rightmost bit is aligned with the determined delimiter bit position;

logically inverting the compensating summand; and

adding a logical 1.

19. (Currently Amended) The computer-readable medium of claim ~~[[16]]~~ 17, wherein the subprecise operand is represented using a delimited normalized format with an implicit leading 1-bit.

20. (Currently Amended) The computer-readable medium of claim ~~[[16]]~~ 17, wherein the one of the plurality of intermediate stages is selected wherein a substantial time delay to correct the error is avoided.

21. (Currently Amended) The computer-readable medium of claim ~~[[16]]~~ 17, wherein time consumed by multiplying the subprecise operand and the non-subprecise operand overlaps time consumed in correcting the error.